

REMARKS

In a telephone conversation with the Examiner on November 25, 2003, the undersigned informed the Examiner that the Applicant did not receive the Office Action dated May 7, 2003. Because no response was received by the Office, the Application has been considered abandoned. The undersigned would like to thank the Examiner for forwarding to him a courtesy copy of the Office Action and giving the Applicant an opportunity to respond. Submitted herewith is a "Petition for Revival of Abandoned Application" under 37 CFR §1.137, along with the requisite fee.

In the non-final Office Action mailed May 7, 2003, the Supplemental Information Disclosure Statement filed February 28, 2001 was objected to; the drawings were objected to; the Specification was objected to due to informalities; claims 1-47 were rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5-14, 27, 28 and 33 of co-pending Application No. 09/452,904; claims 11-13 were rejected under 35 U.S.C. §112, second paragraph; claims 1-5, 7-8, 10, 14-18, 20, 24-28, 30, 32, 34, 38-42 and 44 were rejected under §102(e) as being anticipated by Schotz et al. (5,832,024); claims 6 and 29 were rejected under §103 as being unpatentable over Schotz in view of Allen; claims 9, 19, 31, 33 and 43 were rejected under §103 as being unpatentable over Schotz in view of Anderson (5,406,634); and claims 11-13, 21-23, 35-37 and 45-47 were rejected under §103 as being unpatentable over Schotz in view of Wang (5,751,774). Various other art was made of record but not relied upon.

In the present Response:

The Figures have been amended as set forth on the attached replacement drawings (formal drawings will be submitted upon allowance of the Application), changing most of the questionable element numbers to appropriate numbers of elements mentioned in the description. Exceptions from the list are noted: element 224 is now mentioned in the second line of the amended paragraph beginning on page 33, line 3; element 309 is now mentioned in the eighth and ninth lines of the amended paragraph beginning on page 16, line 7; and elements 1214 and 1314 are now mentioned in the fifth line of the amended paragraph beginning on page 36, line 3. Also, mention of the element noted on page 12, lines 12-13 as not being present in the drawings has been amended to insert correct element numbers. Additionally, Figures 1, 2, and 15 have each been split into two Figures in order to meet formatting requirements.

The Specification has been amended to address the informalities noted in the Office Action as well as other similar errors which were not noted, and to take into account the revised Figures.

Claims 11-13, as well as 21-23, 35-37 and 45-47, have been cancelled, thus obviating the rejection under §112.

Claims 1-10, 14-20, 24-34 and 38-44 have been amended and claim 48 has been added.

A Supplemental IDS is being submitted herewith including an English translation of German Patent DE 299 08 045 U 1.

The Applicant respectfully requests that the following remarks be considered and the rejections under §§ 112, 102 & 103 be withdrawn:

The independent claims (1, 14, 24, 32 and 38) have been amended to more clearly recite the distributed and discrete nature of the claimed wireless speakers in which the signal received by the speakers includes at least two transmission data channels. The speakers are discrete; that is, not only are they wireless relative to the transmission device, but they are independent and wireless relative to each other as well. The output audio signal in each speaker is generated based upon a selected audio channel. Consequently, speaker placement is highly flexible and may be changed or even fine-tuned with minimal effort, even in sophisticated sound systems with, for example, five or more speakers. Moreover, claims have also been amended to more clearly recite that the output signal of the speaker is synchronized with the output signal of each other speaker. Thus, a listener may enjoy a highly accurate sound reproduction experience.

By contrast, each speaker of Schotz is wired to a central receiver (see Figs. 1 and 3B), which receives transmission data, decodes it, divides the channels and sends each channel to one speaker over wires. Thus, the speakers themselves do not include, among others, any means for receiving an RF signal or any means for selecting one of the audio channels from the RF signal. Nor does it appear that a speaker of Schotz includes any means for synchronizing its output with the output of each other speaker. Thus, placement of the speakers of Schotz is more limited and accurate sound reproduction more difficult to achieve

In one embodiment of the claimed invention, a direct sequence spread spectrum (DSSS) modulation method is employed to synchronize the output of the claimed speaker with the output of each other speaker in the speaker system. A chip clock in the transmitter is set to a rate equal to an integer multiple of the rate of the audio sample clock (Specification, page 11, lines 15-18). Correspondingly, a demodulator in the receiver of the speaker runs at the same rate and performs symbol synchronization (Specification, beginning on page 15, line 17). A beneficial result from the chip clock rate being an integer multiple of the audio sample clock is that jitter is reduced, thereby increasing accuracy. By contrast, the chip clock of Schotz is only “approximately 16 times the digital audio bit rate” (col. 17, lines 4-5; emphasis added), which is not an integer multiple rate. Thus, Schotz does not teach the advantage of increased accuracy provided by a chip clock rate which is an exact (integer) multiple of the audio bit rate.

In another embodiment of the claimed invention, the transmitted RF signal includes at least two RF signals at different frequencies and the receiver at the speaker receives the at least two RF signals at different frequencies. The speaker further includes means for selecting one of the frequencies and outputs audio based on the audio channel included in the selected frequency. By contrast, the system of Allen includes multiple, independent receivers in each speaker, a less efficient and more expensive configuration than the claimed configuration.

The prior art made of record but not relied upon has been reviewed but is not believed to be any more relevant than the art relied upon.

Consequently, none of the cited references render the claimed discrete wireless speaker obvious and the Applicant respectfully requests that the rejection be withdrawn.

A terminal disclaimer will be submitted to obviate the provisional obviousness-type double patenting rejection of claims 1-47 upon the allowance of claims in the present Application.

The Application is believed to be in condition for allowance. The Applicant respectfully requests that the amendments be entered and a Notice of Allowance be issued. The Examiner is also encouraged to contact the undersigned by telephone if a conversation would expedite prosecution of this case.

This constitutes a request for any needed extension of time. The Commissioner is hereby authorized to charge any deficiency of fees submitted herewith to be charged to Deposit Account Number 19-5117.

Respectfully Submitted,


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